

In the Abstract:

Please replace the Abstract, as originally filed, with the clean copy of the rewritten Abstract attached to the accompanying "Rewritten Abstract" cover sheet.

REMARKS

It will be noted that a Petition for Extension of Time Under 37 CFR 1.136(a), and the prescribed fee, accompany this Response.

The undersigned wishes to thank the Examiner for taking the time to discuss this case and his requirements with the undersigned by telephone on Monday, August 5, 2002.

It has been undersigned's intent, in providing the above Amendment, to comply fully with the Examiner's request for a rewritten Specification and Abstract, with correct grammar and syntax. It is believed that the accompanying Amendment complies with these requirements. It will be noted that, as specifically requested by the Examiner, each substitution is set forth in both a marked-up version and a clean version, so that the Examiner may easily compare the revised versions with the originals, as filed, and also easily read the resulting documents. No new matter has been presented in these revisions, as the Examiner may readily confirm.

Referring to the paragraph numbering of the aforementioned Office Action:

1. No new claims have been added by this Amendment. The original 15 claims have, however, been rewritten extensively to comply with the Examiner's requirement of grammatical and syntactical precision, and to otherwise comply with the Rules.
2. As requested, the Specification has now been replaced with a rewritten Specification in proper colloquial English. In response to the Examiner's specific request, a marked-up and a clean copy of the rewritten Specification is attached to the accompanying "Rewritten Specification" cover sheet. Once again, no new matter has been added by this Amendment.
3. All claims have been carefully rewritten to eliminate all grammatical errors and otherwise to comply with the Rules.
4. The undersigned is aware of the content of 35 U.S.C. §112.
5. In respect to the Examiner's rejection of Claims 1-15 under 35 U.S.C. §112 (following the Examiner's paragraphing, with reference always to the clean versions of the rewritten Specification and Claims):

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Claim 1 has been rewritten. It now recites: "...at least two sun gears engageable with the ratchet-teeth of each of the planetary gears..." It is believed that this is quite clear, and that proper antecedent basis now exists, on account of corresponding amendment to the previous paragraph of the claim, referring to the planetary gears.

Both of the sun gears have ratchet-teeth on their inner circumferences, as now clearly recited in Claim 1, and supported by the Specification (see page 5, line 32 to page 6, line 2, of the Specification).

The word "selectively" refers to the mediating effect of the clutch means, as now more clearly recited in Claim 1.

The original position is the relative angular position which the transforming disk occupies before it transforms the position of the pawl-controlling ring. See, e.g., page 5, lines 12-16 of the Specification.

The transforming disk can rotate freely, in the sense that its rotation is unimpeded, except by the fact that, as the Examiner points out, some of its rotational energy is transmitted to the pawl-controlling ring via the mediating portion.

The grooves are, indeed symmetrical in respect to the axis of pawl-controlling ring, but they are not uniformly spaced around the interior of the ring. In other words, each groove in a pair of identical grooves (e.g., the pair of angular grooves 432) is opposite the other, providing the symmetry called for in Claim 2. However, the angular grooves 432 and the sloping grooves 431 are not spaced at a uniform angular distribution around the inner periphery of the ring, as recited in Claim 3. See Figure 5.

The sloping grooves have the shape shown as 431, in Figure 5; the angular grooves are shown as 432, in Figure 5. It will be noted that the rise is steeper in the angular grooves than in the sloping grooves.

Regarding the relative distance of the pawls, it is believed that the Examiner's reference to "Claim 4" was intended actually to refer to Claim 7, in which this element is recited. If that is the case, reference is made to Figure 6, in which the relatively farther positioned pawls 422 are at a greater distance from the pawl controlling ring 430 than are the "relatively closer" pawls 421. The relatively farther pawls 422 possess an extended portion 422c that is thinner than the pawl body. See Figure 7 and the discussion at page

6, lines 3-9 of the Specification.

Finally, Claim 11 does limit that particular claim itself, to an apparatus having more than two pairs of pawls. This is one embodiment of the invention.

Having now complied with all of the Examiner's requirements and, it is believed, having responded to all of the Examiner's claim rejections under 35 U.S.C. §112, and noting that the Examiner has stated that Claims 1-15 would be allowable if rewritten in the form in which they are now believed presented, Claims 1-15 should now be allowable. Since all other requirements of the Examiner are believed to have been satisfied, it is believed that the above Application is now in condition for allowance. An early Notice of Allowability is therefore earnestly solicited.

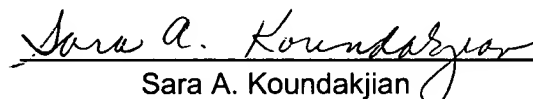
Respectfully submitted,


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CERTIFICATION UNDER 37 C.F.R. 1.10

I hereby certify that the accompanying RESPONSE is being deposited with the United States Postal Service on the date indicated below, in an envelope designated as "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10, Mailing Label Number ET847117180US, addressed to the Assistant Commissioner for Patents, Washington, DC 20231.

 August 6, 2002
Sara A. Koundakjian (date)